

## Swauk Pine Monitoring Plan

Final E.A.

Okanogan – Wenatchee National Forest, Cle Elum Ranger District

*Table 1: Items to be included in Swauk Pine decision. E = effectiveness, I = Implementation, V=Validation.*

<b>Monitoring Action Item</b>	<b>Tapash Categories for Monitoring</b>	<b>Objective</b>	<b>Rationale</b>	<b>Measureable Criteria</b>	<b>Monitoring type</b>
Riparian Restoration	Wildlife and Aquatic Species and Habitat	Restore 8 dispersed sites, redesign roads in or crossing riparian reserves (4 sites). Remove failing fill slopes (4 Lion Gulch).	Included in purpose and need.	Riparian acres of fully restored.	I
In stream wood replenishment.	Wildlife and Aquatic Species and Habitat	Add wood (16 sites in Lion, Cougar, Billy Goat, Williams). large wood replenishment on 8 miles of habitat	Included in purpose and need.	In stream channel Manning's roughness is improved, pre vs. post treatment.	I, E
Restore Aquatic Organism Passage (AOP)	Wildlife and Aquatic Species and Habitat	Upsize stream culverts on 14 sites. Remove (3) diversion dams Cougar Gulch.	Included in purpose and need.	Full habitat connectivity restored at all culvert sites. Use WDFW monitoring protocol.	I, E

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Transportation Management.	Wildlife and Aquatic Species and Habitat	Install effective road closures, (1.34) miles, road decommissioning (18.11) miles.	Included in purpose and need. Direction in ACS. Direction in watershed analysis.	Determine that post closure public access is limited to foot travel on closed roads. Decommissioned road is not drivable.	I, E
Recreation Use, Trail System Rehab.	Recreation and Social Values Habitat	4WD trail storm proof, reconstruction (3.1) miles, relocation (1.6) miles, decommission 4W339 (3.7) miles, convert (1.1) of road to dual use system trail.	Included in purpose and need.	Closed trails are showing surface vegetation recolonization. Water is channeled off old trail routes. New routes are stable. Public compliance is gained with the recreation and trail education and enforcement strategy.	I, E
Riparian Zone Thinning	Wildlife and Aquatic Species and Habitat	Increase water availability in riparian zones, increase summer base flows.	Included in purpose and need. Hydrology Rx.	Higher summer base flows. Meet 50% crown closure in treated riparian zone fringe.	I, E
Range Management	Vegetation	Maintain sheep allotment access across the treatment area. Focus restoration work in a single drainage, complete work in one drainage at a time.	Range Management Mitigation Measure	Grazing activities continue with minimal resource conflicts; commercial thinning, Rx burning, and road actions.	I

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Spotted Owl Habitat Risk Reduction	Wildlife and Aquatic Species and Habitat	Treat in poor quality habitat, protect best existing habitat; in treatment areas, meet post RX crown closures.	NSO Recovery Plan.	Commercial thinning and fire treatments create a resilient forest type, so that when wildfires occur, they are surface fires. Treated sites can be used to arrest fire in advance of higher quality owl habitat. .	I,E
Spotted Owl Prey Base Habitat Study	Wildlife and Aquatic Species and Habitat	Complete prey base study as designed. Understand prey base dynamics as a result of management actions.	NSO Recovery Plan	Compare pre and post treatment prey base trap counts/abundance.	V
White Headed Woodpecker Occupancy Study	Wildlife and Aquatic Species and Habitat	Determine if treatments are effective in creating new occupancy.	MIS	Measure presence on the landscape focused on dry pine stands with large trees > 25” DBH.	E

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Songbird Occupancy	Wildlife and Aquatic Species and Habitat	Increase habitat quality.	Viability of avian focal species.	Compare pre and post treatment songbird counts.	E
Large Tree Retention in commercial thinning and underburning.	Vegetation Restoration	Retain large trees during commercial thin and underburning. Maintain tree marking patterns in cable units, meet crown closure post Rx.	Forest Restoration Strategy	Monitoring of fire and fuels effects using forest protocol, Firemon, USDA. Reconstruct and locate magnets placed on stand exam plot centers to re-construct retention of large trees >25" DBH.	E
Reconstruct the 9718-112	Transportation Management	Road resurfacing, sloping, drainage, and hardening.	Included in purpose and need.	Road is self-maintaining with new design, surface erosion is absent with new hardened rock surface and drainage design. Public access is maintained.	I,E

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Aspen Restoration	Vegetation Restoration	Restore unique vegetation cover types. Promote aspen suckering, fence and protect regeneration from big game.	Included in proposed action.	Aspen regeneration is prolific and protected from browse with fencing until it is 15' tall.	I, E
Noxious Weed Control	Vegetation Restoration	Control noxious weeds stimulated by restoration treatments.	Included in proposed action.	Early detection and pre-treatment of noxious weed sites EDRR (Early Detection and Rapid Response Approach). Plan for 80% mortality reduction in post treatment weed populations.	I
Firewood Cutting	Socio-Economics	Removal of roadside hazardous fuels	Project Level Public Scoping Input.	Landing piles are utilized for firewood before burning. Road decommissioning is planned so that firewood opportunities are realized before road is decommissioned.	I, E

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Fire and Fuels	Fire & Fuels	Monitor fire effects from prescribed fire.	Included in proposed action.	The Fire Effects Monitoring and Inventory System (FIRMON) will be used at 1, 5, and 10 years following completion of treatment. Maintenance and prescribed burns will begin at 1, 5 and 10 year, post-Rx. FIRMON information can be found in the following document: Gen. Tech. Rep. RMRS-GTR-164-CD.	I
Smoke and Air Quality	Air Quality	Monitor emissions from prescribed fire.	Included in proposed action.	Air quality monitoring will occur on the day of ignition of prescribed burning. It will continue until the District Fire Management Officer and Assistant Fire Management Officer, Fuels determine there is no longer any threat to local resident health, smoke impairment to public roadways, and sensitive visual quality areas.	I